

Date: Sat, 20 Nov 93 04:30:33 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V93 #87
To: Ham-Space

Ham-Space Digest Sat, 20 Nov 93 Volume 93 : Issue 87

Today's Topics:

ORBS\$316.2L.AMSAT
ORBS\$316.MICRO.AMSAT
ORBS\$316.MISC.AMSAT
ORBS\$316.OSCAR.AMSAT
ORBS\$316.WEATH.AMSAT
SAT Code on the NET
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Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

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We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 15 Nov 1993 11:43:00 MST
From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!unixg.ubc.ca!
kakwa.ucs.ualberta.ca!ersys!adec23!ve6mgs!usenet@ames.arpa
Subject: ORBS\$316.2L.AMSAT
To: ham-space@ucsd.edu

SB KEPS @ AMSAT \$ORBS-316.N
2Line Orbital Elements 316.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM WA5QGD FORT WORTH,TX November 12, 1993
BID: \$ORBS-316.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ

2 AAAAA EEE.EEEE FFF.FFFF GGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJ KKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

AO-10

1 14129U 83058B 93304.58449144 -.000000081 00000-0 10000-3 0 2086
2 14129 27.1748 358.4423 6020940 126.4893 305.1053 2.05881853 78069

UO-11

1 14781U 84021B 93313.58249069 .000000229 00000-0 42927-4 0 6110
2 14781 97.7981 333.4777 0010810 254.3694 105.6328 14.69080500518069

RS-10/11

1 18129U 87054A 93314.04939054 .000000017 00000-0 11670-4 0 8119
2 18129 82.9214 130.8225 0010360 275.4234 84.5738 13.72325356319844

AO-13

1 19216U 88051B 93313.91272759 -.000000211 00000-0 10000-4 0 8126
2 19216 57.8912 284.9332 7213964 328.0558 3.5561 2.09724845 41418

FO-20

1 20480U 90013C 93310.07362541 -.000000005 00000-0 14874-4 0 6071
2 20480 99.0217 139.2984 0541030 125.0547 240.2545 12.83221816175512

AO-21

1 21087U 91006A 93314.29055835 .000000084 00000-0 82657-4 0 3674
2 21087 82.9398 304.7020 0035176 337.0887 22.8703 13.74528243139502

RS-12/13

1 21089U 91007A 93313.61484132 .000000056 00000-0 53208-4 0 6119
2 21089 82.9251 174.2800 0030580 1.6907 358.4344 13.74029689138495

ARSENE

1 22654U 93031B 93312.79592387 -.000000046 00000-0 10000-3 0 2081
2 22654 1.4077 114.0599 2932748 160.6003 214.5238 1.42203069 2633

UO-14

1 20437U 90005B 93314.26240544 .000000128 00000-0 57654-4 0 9113
2 20437 98.6068 36.8706 0011455 111.4215 248.8190 14.29802927198303

AO-16

1 20439U 90005D 93314.25650448 .000000093 00000-0 43829-4 0 7110
2 20439 98.6135 37.8762 0011873 112.5374 247.7066 14.29859897198314

DO-17

1 20440U 90005E 93314.72182474 .000000108 00000-0 49637-4 0 7113
2 20440 98.6156 38.5937 0011919 110.1078 250.1390 14.29997154198392

WO-18

1 20441U 90005F 93314.27363549 .000000092 00000-0 43527-4 0 7123
2 20441 98.6152 38.1661 0012426 111.7995 248.4510 14.29974899198337

LO-19

1 20442U 90005G 93314.26623889 .000000107 00000-0 48991-4 0 7115
2 20442 98.6160 38.3657 0012902 111.6029 248.6529 14.30067157198345

UO-22

1 21575U 91050B 93313.78644466 .000000117 00000-0 46604-4 0 4111
2 21575 98.4598 27.4629 0006935 224.2634 135.7989 14.36863544121573

KO-23

1	22077U	92052B	93314.21490842	.000000000	000000-0	10000-3	0	3084
2	22077	66.0804	18.4482 0004639	338.0608	22.0210	12.86281812		58628

AO-27

1	22825U	93061C	93305.38322237	.000000057	000000-0	31218-4	0	2082
2	22825	98.6783	18.2116 0008754	149.2634	210.9045	14.27587035		5170

IO-26

1	22826U	93061D	93305.66096033	.000000076	000000-0	39017-4	0	2093
2	22826	98.6791	18.4934 0009019	149.5441	210.6266	14.27689613		5227

KO-25

1	22830U	93061H	93314.69145093	.000000111	000000-0	52532-4	0	2112
2	22830	98.5800	27.0255 0012337	94.9544	265.3046	14.28015541		6518

NOAA-9

1	15427U	84123A	93300.72651427	.000000099	000000-0	62608-4	0	6087
2	15427	99.0865	343.0970 0014906	151.8994	208.2999	14.13555759457494		

NOAA-10

1	16969U	86073A	93308.02577200	.000000107	000000-0	53892-4	0	5086
2	16969	98.5151	318.8770 0012448	270.5362	89.4395	14.24841200370532		

MET-2/17

1	18820U	88005A	93313.86326152	.000000060	000000-0	48384-4	0	2105
2	18820	82.5401	83.0499 0017920	77.7053	282.6113	13.84696783292003		

MET-3/2

1	19336U	88064A	93313.98312645	.000000043	000000-0	10000-3	0	2102
2	19336	82.5385	118.8020 0017396	88.4059	271.9055	13.16962219254409		

NOAA-11

1	19531U	88089A	93307.95823027	.000000139	000000-0	84844-4	0	4080
2	19531	99.1482	286.6377 0012789	46.5585	313.6658	14.12928630263406		

MET-2/18

1	19851U	89018A	93314.44174536	.000000042	000000-0	31952-4	0	2111
2	19851	82.5186	318.3186 0015511	116.9458	243.3286	13.84348503237428		

MET-3/3

1	20305U	89086A	93313.78275180	.000000043	000000-0	10000-3	0	9124
2	20305	82.5475	62.1477 0016698	110.3082	249.9836	13.16023732194255		

MET-2/19

1	20670U	90057A	93314.71352062	.000000015	000000-0	79036-5	0	7110
2	20670	82.5501	22.0091 0017060	42.7604	317.4880	13.84180249170390		

FY-1/2

1	20788U	90081A	93314.27490495	.000000352	000000-0	25587-3	0	8161
2	20788	98.8528	336.2622 0014224	264.8255	95.1288	14.01329924163048		

MET-2/20

1	20826U	90086A	93314.40511387	.000000040	000000-0	31266-4	0	7107
2	20826	82.5262	320.0564 0012856	307.6374	52.3617	13.83563412157505		

MET-3/4

1	21232U	91030A	93311.55017164	.000000043	000000-0	10000-3	0	6133
2	21232	82.5434	326.2919 0013431	27.8915	332.2926	13.16456437122196		

NOAA-12

1	21263U	91032A	93308.09045315	.000000189	000000-0	93717-4	0	8155
2	21263	98.6458	335.5750 0012543	165.4607	194.6943	14.22328054128523		

MET-3/5

1 21655U 91056A 93313.85451209 .000000043 00000-0 10000-3 0 6115
2 21655 82.5506 271.6301 0014550 26.1377 334.0477 13.16825241107591

MET-2/21

1 22782U 93055A 93314.66191362 .000000093 00000-0 79632-4 0 2106
2 22782 82.5507 19.6100 0023265 115.4347 244.9226 13.82991020 9889

MIR

1 16609U 86017A 93314.97077396 .00004226 00000-0 55300-4 0 5720
2 16609 51.6183 202.0455 0005693 23.2148 336.9078 15.59529397 30542

HUBBLE

1 20580U 90037B 93307.41913862 .00000906 00000-0 78090-4 0 3593
2 20580 28.4692 246.8298 0004679 70.9135 289.1966 14.92902547192330

GRO

1 21225U 91027B 93314.39830284 .00016953 00000-0 18182-3 0 2202
2 21225 28.4634 313.5049 0075239 9.9355 350.2723 15.58504747 23130

UARS

1 21701U 91063B 93309.31219655 -.00002650 00000-0 -22264-3 0 4119
2 21701 56.9841 336.0504 0005602 88.9850 271.1633 14.96217444117417

POSAT

1 22829U 93 61 G 93289.11726978 .000000072 00000-0 37231-4 0 2042
2 22829 98.6763 2.0610 0010043 184.4594 175.6498 14.27975951 2862

/EX

Date: Mon, 15 Nov 1993 11:36:00 MST

From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!unixg.ubc.ca!
kakwa.ucs.ualberta.ca!ersys!adec23!ve6mgs!usenet@ames.arpa

Subject: ORBS\$316.MICRO.AMSAT

To: ham-space@ucsd.edu

SB KEPS @ AMSAT \$ORBS-316.D

Orbital Elements 316.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS

FROM WA5QGD FORT WORTH,TX November 12, 1993

BID: \$ORBS-316.D

TO ALL RADIO AMATEURS BT

Satellite: UO-14

Catalog number: 20437

Epoch time: 93314.26240544

Element set: 911

Inclination: 98.6068 deg

RA of node: 36.8706 deg

Eccentricity: 0.0011455

Arg of perigee: 111.4215 deg

Mean anomaly: 248.8190 deg

Mean motion: 14.29802927 rev/day
Decay rate: 1.28e-06 rev/day²
Epoch rev: 19830
Checksum: 295

Satellite: A0-16
Catalog number: 20439
Epoch time: 93314.25650448
Element set: 711
Inclination: 98.6135 deg
RA of node: 37.8762 deg
Eccentricity: 0.0011873
Arg of perigee: 112.5374 deg
Mean anomaly: 247.7066 deg
Mean motion: 14.29859897 rev/day
Decay rate: 9.3e-07 rev/day²
Epoch rev: 19831
Checksum: 335

Satellite: D0-17
Catalog number: 20440
Epoch time: 93314.72182474
Element set: 711
Inclination: 98.6156 deg
RA of node: 38.5937 deg
Eccentricity: 0.0011919
Arg of perigee: 110.1078 deg
Mean anomaly: 250.1390 deg
Mean motion: 14.29997154 rev/day
Decay rate: 1.08e-06 rev/day²
Epoch rev: 19839
Checksum: 311

Satellite: W0-18
Catalog number: 20441
Epoch time: 93314.27363549
Element set: 712
Inclination: 98.6152 deg
RA of node: 38.1661 deg
Eccentricity: 0.0012426
Arg of perigee: 111.7995 deg
Mean anomaly: 248.4510 deg
Mean motion: 14.29974899 rev/day
Decay rate: 9.2e-07 rev/day²
Epoch rev: 19833
Checksum: 325

Satellite: L0-19

Catalog number: 20442
Epoch time: 93314.26623889
Element set: 711
Inclination: 98.6160 deg
RA of node: 38.3657 deg
Eccentricity: 0.0012902
Arg of perigee: 111.6029 deg
Mean anomaly: 248.6529 deg
Mean motion: 14.30067157 rev/day
Decay rate: 1.07e-06 rev/day^2
Epoch rev: 19834
Checksum: 304

Satellite: UO-22
Catalog number: 21575
Epoch time: 93313.78644466
Element set: 411
Inclination: 98.4598 deg
RA of node: 27.4629 deg
Eccentricity: 0.0006935
Arg of perigee: 224.2634 deg
Mean anomaly: 135.7989 deg
Mean motion: 14.36863544 rev/day
Decay rate: 1.17e-06 rev/day^2
Epoch rev: 12157
Checksum: 334

Satellite: K0-23
Catalog number: 22077
Epoch time: 93314.21490842
Element set: 308
Inclination: 66.0804 deg
RA of node: 18.4482 deg
Eccentricity: 0.0004639
Arg of perigee: 338.0608 deg
Mean anomaly: 22.0210 deg
Mean motion: 12.86281812 rev/day
Decay rate: .00000000 rev/day^2
Epoch rev: 5862
Checksum: 255

Satellite: A0-27
Catalog number: 22825
Epoch time: 93305.38322237
Element set: 208
Inclination: 98.6783 deg
RA of node: 18.2116 deg
Eccentricity: 0.0008754

Arg of perigee: 149.2634 deg
Mean anomaly: 210.9045 deg
Mean motion: 14.27587035 rev/day
Decay rate: 5.7e-07 rev/day^2
Epoch rev: 517
Checksum: 300

Satellite: IO-26
Catalog number: 22826
Epoch time: 93305.66096033
Element set: 209
Inclination: 98.6791 deg
RA of node: 18.4934 deg
Eccentricity: 0.0009019
Arg of perigee: 149.5441 deg
Mean anomaly: 210.6266 deg
Mean motion: 14.27689613 rev/day
Decay rate: 7.6e-07 rev/day^2
Epoch rev: 522
Checksum: 311

Satellite: K0-25
Catalog number: 22830
Epoch time: 93314.69145093
Element set: 211
Inclination: 98.5800 deg
RA of node: 27.0255 deg
Eccentricity: 0.0012337
Arg of perigee: 94.9544 deg
Mean anomaly: 265.3046 deg
Mean motion: 14.28015541 rev/day
Decay rate: 1.11e-06 rev/day^2
Epoch rev: 651
Checksum: 267

/EX

Date: Mon, 15 Nov 1993 11:41:00 MST
From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!unixg.ubc.ca!
kakwa.ucs.ualberta.ca!ersys!adec23!ve6mgs!usenet@ames.arpa
Subject: ORBS\$316.MISC.AMSAT
To: ham-space@ucsd.edu

SB KEPS @ AMSAT \$ORBS-316.M
Orbital Elements 316.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM WA5QGD FORT WORTH, TX November 12, 1993
BID: \$ORBS-316.M
TO ALL RADIO AMATEURS BT

Satellite: MIR
Catalog number: 16609
Epoch time: 93314.97077396
Element set: 572
Inclination: 51.6183 deg
RA of node: 202.0455 deg
Eccentricity: 0.0005693
Arg of perigee: 23.2148 deg
Mean anomaly: 336.9078 deg
Mean motion: 15.59529397 rev/day
Decay rate: 4.226e-05 rev/day²
Epoch rev: 3054
Checksum: 314

Satellite: HUBBLE
Catalog number: 20580
Epoch time: 93307.41913862
Element set: 359
Inclination: 28.4692 deg
RA of node: 246.8298 deg
Eccentricity: 0.0004679
Arg of perigee: 70.9135 deg
Mean anomaly: 289.1966 deg
Mean motion: 14.92902547 rev/day
Decay rate: 9.06e-06 rev/day²
Epoch rev: 19233
Checksum: 335

Satellite: GRO
Catalog number: 21225
Epoch time: 93314.39830284
Element set: 220
Inclination: 28.4634 deg
RA of node: 313.5049 deg
Eccentricity: 0.0075239
Arg of perigee: 9.9355 deg
Mean anomaly: 350.2723 deg
Mean motion: 15.58504747 rev/day
Decay rate: 1.6953e-04 rev/day²
Epoch rev: 2313
Checksum: 290

Satellite: UARS

Catalog number: 21701
Epoch time: 93309.31219655
Element set: 411
Inclination: 56.9841 deg
RA of node: 336.0504 deg
Eccentricity: 0.0005602
Arg of perigee: 88.9850 deg
Mean anomaly: 271.1633 deg
Mean motion: 14.96217444 rev/day
Decay rate: -2.650e-05 rev/day^2
Epoch rev: 11741
Checksum: 279

Satellite: POSAT
Catalog number: 22829
Epoch time: 93289.11726978
Element set: 204
Inclination: 98.6763 deg
RA of node: 2.0610 deg
Eccentricity: 0.0010043
Arg of perigee: 184.4594 deg
Mean anomaly: 175.6498 deg
Mean motion: 14.27975951 rev/day
Decay rate: 7.2e-07 rev/day^2
Epoch rev: 286
Checksum: 317

/EX

Date: Mon, 15 Nov 1993 11:34:00 MST
From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!unixg.ubc.ca!
kakwa.ucs.ualberta.ca!ersys!adec23!ve6mgs!usenet@ames.arpa
Subject: ORBS\$316.OSCAR.AMSAT
To: ham-space@ucsd.edu

SB KEPS @ AMSAT \$ORBS-316.0
Orbital Elements 316.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM WA5QGD FORT WORTH,TX November 12, 1993
BID: \$ORBS-316.0
TO ALL RADIO AMATEURS BT

Satellite: A0-10
Catalog number: 14129
Epoch time: 93304.58449144

Element set: 208
Inclination: 27.1748 deg
RA of node: 358.4423 deg
Eccentricity: 0.6020940
Arg of perigee: 126.4893 deg
Mean anomaly: 305.1053 deg
Mean motion: 2.05881853 rev/day
Decay rate: -8.1e-07 rev/day²
Epoch rev: 7806
Checksum: 297

Satellite: UO-11
Catalog number: 14781
Epoch time: 93313.58249069
Element set: 611
Inclination: 97.7981 deg
RA of node: 333.4777 deg
Eccentricity: 0.0010810
Arg of perigee: 254.3694 deg
Mean anomaly: 105.6328 deg
Mean motion: 14.69080500 rev/day
Decay rate: 2.29e-06 rev/day²
Epoch rev: 51806
Checksum: 312

Satellite: RS-10/11
Catalog number: 18129
Epoch time: 93314.04939054
Element set: 811
Inclination: 82.9214 deg
RA of node: 130.8225 deg
Eccentricity: 0.0010360
Arg of perigee: 275.4234 deg
Mean anomaly: 84.5738 deg
Mean motion: 13.72325356 rev/day
Decay rate: 1.7e-07 rev/day²
Epoch rev: 31984
Checksum: 288

Satellite: A0-13
Catalog number: 19216
Epoch time: 93313.91272759
Element set: 812
Inclination: 57.8912 deg
RA of node: 284.9332 deg
Eccentricity: 0.7213964
Arg of perigee: 328.0558 deg
Mean anomaly: 3.5561 deg

Mean motion: 2.09724845 rev/day
Decay rate: -2.11e-06 rev/day²
Epoch rev: 4141
Checksum: 307

Satellite: F0-20
Catalog number: 20480
Epoch time: 93310.07362541
Element set: 607
Inclination: 99.0217 deg
RA of node: 139.2984 deg
Eccentricity: 0.0541030
Arg of perigee: 125.0547 deg
Mean anomaly: 240.2545 deg
Mean motion: 12.83221816 rev/day
Decay rate: -5.0e-08 rev/day²
Epoch rev: 17551
Checksum: 267

Satellite: A0-21
Catalog number: 21087
Epoch time: 93314.29055835
Element set: 367
Inclination: 82.9398 deg
RA of node: 304.7020 deg
Eccentricity: 0.0035176
Arg of perigee: 337.0887 deg
Mean anomaly: 22.8703 deg
Mean motion: 13.74528243 rev/day
Decay rate: 8.4e-07 rev/day²
Epoch rev: 13950
Checksum: 309

Satellite: RS-12/13
Catalog number: 21089
Epoch time: 93313.61484132
Element set: 611
Inclination: 82.9251 deg
RA of node: 174.2800 deg
Eccentricity: 0.0030580
Arg of perigee: 1.6907 deg
Mean anomaly: 358.4344 deg
Mean motion: 13.74029689 rev/day
Decay rate: 5.6e-07 rev/day²
Epoch rev: 13849
Checksum: 298

Satellite: ARSENE

Catalog number: 22654
Epoch time: 93312.79592387
Element set: 208
Inclination: 1.4077 deg
RA of node: 114.0599 deg
Eccentricity: 0.2932748
Arg of perigee: 160.6003 deg
Mean anomaly: 214.5238 deg
Mean motion: 1.42203069 rev/day
Decay rate: -4.6e-07 rev/day^2
Epoch rev: 263
Checksum: 280

/EX

Date: Mon, 15 Nov 1993 11:39:00 MST
From: saimiri.primate.wisc.edu!caen!destroyer!nntp.cs.ubc.ca!unixg.ubc.ca!
kakwa.ucs.ualberta.ca!ersys!adec23!ve6mgs!usenet@ames.arpa
Subject: ORBS\$316.WEATH.AMSAT
To: ham-space@ucsd.edu

SB KEPS @ AMSAT \$ORBS-316.W
Orbital Elements 316.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM WA5QGD FORT WORTH,TX November 12, 1993
BID: \$ORBS-316.W
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time: 93300.72651427
Element set: 608
Inclination: 99.0865 deg
RA of node: 343.0970 deg
Eccentricity: 0.0014906
Arg of perigee: 151.8994 deg
Mean anomaly: 208.2999 deg
Mean motion: 14.13555759 rev/day
Decay rate: 9.9e-07 rev/day^2
Epoch rev: 45749
Checksum: 353

Satellite: NOAA-10
Catalog number: 16969
Epoch time: 93308.02577200

Element set: 508
Inclination: 98.5151 deg
RA of node: 318.8770 deg
Eccentricity: 0.0012448
Arg of perigee: 270.5362 deg
Mean anomaly: 89.4395 deg
Mean motion: 14.24841200 rev/day
Decay rate: 1.07e-06 rev/day^2
Epoch rev: 37053
Checksum: 298

Satellite: MET-2/17
Catalog number: 18820
Epoch time: 93313.86326152
Element set: 210
Inclination: 82.5401 deg
RA of node: 83.0499 deg
Eccentricity: 0.0017920
Arg of perigee: 77.7053 deg
Mean anomaly: 282.6113 deg
Mean motion: 13.84696783 rev/day
Decay rate: 6.0e-07 rev/day^2
Epoch rev: 29200
Checksum: 293

Satellite: MET-3/2
Catalog number: 19336
Epoch time: 93313.98312645
Element set: 210
Inclination: 82.5385 deg
RA of node: 118.8020 deg
Eccentricity: 0.0017396
Arg of perigee: 88.4059 deg
Mean anomaly: 271.9055 deg
Mean motion: 13.16962219 rev/day
Decay rate: 4.3e-07 rev/day^2
Epoch rev: 25440
Checksum: 300

Satellite: NOAA-11
Catalog number: 19531
Epoch time: 93307.95823027
Element set: 408
Inclination: 99.1482 deg
RA of node: 286.6377 deg
Eccentricity: 0.0012789
Arg of perigee: 46.5585 deg
Mean anomaly: 313.6658 deg

Mean motion: 14.12928630 rev/day
Decay rate: 1.39e-06 rev/day²
Epoch rev: 26340
Checksum: 329

Satellite: MET-2/18
Catalog number: 19851
Epoch time: 93314.44174536
Element set: 211
Inclination: 82.5186 deg
RA of node: 318.3186 deg
Eccentricity: 0.0015511
Arg of perigee: 116.9458 deg
Mean anomaly: 243.3286 deg
Mean motion: 13.84348503 rev/day
Decay rate: 4.2e-07 rev/day²
Epoch rev: 23742
Checksum: 302

Satellite: MET-3/3
Catalog number: 20305
Epoch time: 93313.78275180
Element set: 912
Inclination: 82.5475 deg
RA of node: 62.1477 deg
Eccentricity: 0.0016698
Arg of perigee: 110.3082 deg
Mean anomaly: 249.9836 deg
Mean motion: 13.16023732 rev/day
Decay rate: 4.3e-07 rev/day²
Epoch rev: 19425
Checksum: 296

Satellite: MET-2/19
Catalog number: 20670
Epoch time: 93314.71352062
Element set: 711
Inclination: 82.5501 deg
RA of node: 22.0091 deg
Eccentricity: 0.0017060
Arg of perigee: 42.7604 deg
Mean anomaly: 317.4880 deg
Mean motion: 13.84180249 rev/day
Decay rate: 1.5e-07 rev/day²
Epoch rev: 17039
Checksum: 262

Satellite: FY-1/2

Catalog number: 20788
Epoch time: 93314.27490495
Element set: 816
Inclination: 98.8528 deg
RA of node: 336.2622 deg
Eccentricity: 0.0014224
Arg of perigee: 264.8255 deg
Mean anomaly: 95.1288 deg
Mean motion: 14.01329924 rev/day
Decay rate: 3.52e-06 rev/day²
Epoch rev: 16304
Checksum: 314

Satellite: MET-2/20
Catalog number: 20826
Epoch time: 93314.40511387
Element set: 710
Inclination: 82.5262 deg
RA of node: 320.0564 deg
Eccentricity: 0.0012856
Arg of perigee: 307.6374 deg
Mean anomaly: 52.3617 deg
Mean motion: 13.83563412 rev/day
Decay rate: 4.0e-07 rev/day²
Epoch rev: 15750
Checksum: 269

Satellite: MET-3/4
Catalog number: 21232
Epoch time: 93311.55017164
Element set: 613
Inclination: 82.5434 deg
RA of node: 326.2919 deg
Eccentricity: 0.0013431
Arg of perigee: 27.8915 deg
Mean anomaly: 332.2926 deg
Mean motion: 13.16456437 rev/day
Decay rate: 4.3e-07 rev/day²
Epoch rev: 12219
Checksum: 275

Satellite: NOAA-12
Catalog number: 21263
Epoch time: 93308.09045315
Element set: 815
Inclination: 98.6458 deg
RA of node: 335.5750 deg
Eccentricity: 0.0012543

Arg of perigee: 165.4607 deg
Mean anomaly: 194.6943 deg
Mean motion: 14.22328054 rev/day
Decay rate: 1.89e-06 rev/day^2
Epoch rev: 12852
Checksum: 306

Satellite: MET-3/5
Catalog number: 21655
Epoch time: 93313.85451209
Element set: 611
Inclination: 82.5506 deg
RA of node: 271.6301 deg
Eccentricity: 0.0014550
Arg of perigee: 26.1377 deg
Mean anomaly: 334.0477 deg
Mean motion: 13.16825241 rev/day
Decay rate: 4.3e-07 rev/day^2
Epoch rev: 10759
Checksum: 276

Satellite: MET-2/21
Catalog number: 22782
Epoch time: 93314.66191362
Element set: 210
Inclination: 82.5507 deg
RA of node: 19.6100 deg
Eccentricity: 0.0023265
Arg of perigee: 115.4347 deg
Mean anomaly: 244.9226 deg
Mean motion: 13.82991020 rev/day
Decay rate: 9.3e-07 rev/day^2
Epoch rev: 988
Checksum: 282

/EX

Date: 19 Nov 93 17:24:38 GMT
From: elroy.jpl.nasa.gov!swrinde!emory!europa.eng.gtefsd.com!library.ucla.edu!
agate!dog.ee.lbl.gov!newshub.nosc.mil!nosc!suned1!sslxt1!kss@decwrl.dec.com
Subject: SAT Code on the NET
To: ham-space@ucsd.edu

Everyone is offering elements but I can't do anything without
some software. I am a supporter of AMSAT but money is a little
tight this year. Is there some SAT source code available that I can

use to run on my SUN workstation?

kss@suned1.NSWSES.Navy.MIL kss@suned1.uucp
Any statements / opinions made here are mine, alone, not the Navy's.
HAVE A GOOD ONE!

Date: 17 Nov 1993 11:34:25 -0600
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!
vixen.cso.uiuc.edu!moe.ksu.ksu.edu!nbc.ksu.ksu.edu!news@network.ucsd.edu
Subject: STS-Plus
To: ham-space@ucsd.edu

I recently bought the STS-Plus satellite tracking program, and I was wondering if anyone else out there uses this program...Also, is there any way that the program will tell you when a good pass is going overhead??? One more thing. If anyone out there has an up to date listing of all the satellites carrying Ham Radio signals with the uplinks and downlinks, this would also be greatly appreciated.

Replies via E-mail please. I don't read this group very often.

Tnx.

73's DE

	\		.--- /	\ /	\ /		Jeremy Utley
	\		/--- /	\ /	\ /		1400 Univ. DR.
	\		/--- /	\ /	\ /		Manhattan, KS
	\		'---'	\ /	\ /		66502

Internet:cbr600@matt.ksu.ksu.edu Bitnet:cbr600@ksuvm Packet:NOYAX@N00ER.KS.USA
-----STANDARD DISCLAIMERS APPLY-----

Date: 19 Nov 93 17:21:38 GMT
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!howland.reston.ans.net!agate!
dog.ee.lbl.gov!newshub.nosc.mil!nosc!suned1!sslxt1!kss@decwrl.dec.com
Subject: STS-Plus or Code available
To: ham-space@ucsd.edu

How do you like the STS-Plus program? Is there some source code on the internet that I could use on my SUN workstation? I am a supporter of AMSAT but money is a little tight this year.

kss@suned1.NSWSES.Navy.MIL kss@suned1.uucp
Any statements / opinions made here are mine, alone, not the Navy's.
HAVE A GOOD ONE!

End of Ham-Space Digest V93 #87

